



**COVER COMMISSION**

*Creating Options for Veterans' Expedited Recovery*

# Duty 1 Workgroup Population Health & Models of Care Research

October 21, 2019



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## CENTERS FOR MEDICARE & MEDICAID SERVICES' PRIMARY CARE OUTCOMES PAYMENT MODEL (2019)

### Type

Functioning Health Care Delivery Model

### Summary

Primary Care First Model Options is a set of voluntary five-year payment options that reward value and quality by offering an innovative payment structure to support delivery of advanced primary care. In response to input from primary care clinician stakeholders, Primary Care First is based on the underlying principles of the existing CPC+ model design: prioritizing the doctor-patient relationship; enhancing care for patients with complex chronic needs and high need, seriously ill patients, reducing administrative burden, and focusing financial rewards on improved health outcomes.

Primary care is central to a high-functioning healthcare system and thus, there is an urgent need to preserve and strengthen primary care as well as a need for support of serious illness care services for Medicare beneficiaries.

Primary Care First addresses these needs by creating a seamless continuum of care and accommodates a continuum of interested providers. The payment options test whether delivery of advanced primary care can reduce total cost of care, accommodating practices at multiple stages of readiness to assume accountability for patient outcomes. Primary Care First will focus on advanced primary care practices ready to assume financial risk in exchange for reduced administrative burdens and performance-based payments.

Through a second payment model option, Primary Care First also encourages advanced primary care practices, including providers whose clinicians are enrolled in Medicare who typically provide hospice or palliative care services, to take responsibility for high need, seriously ill beneficiaries who currently lack a primary care practitioner and/or effective care coordination—population groups referred to under the model as the Seriously Ill Population or SIP.

Primary Care First prioritizes patients by emphasizing the doctor-patient relationship. The model aims to improve the experience for beneficiaries by reducing administrative burdens so practitioners can spend more time with patients. The Centers for Medicare & Medicaid Services (CMS) will prioritize patient choice in the assignment of Medicare beneficiaries to Primary Care First practices.

### Design & Goals

Primary Care First reflects a regionally based, multi-payer approach to care delivery and payment. Primary Care First fosters practitioner independence by increasing flexibility for primary care, providing participating practitioners with the freedom to innovate their care delivery approach based on their unique patient population and resources. Primary Care First

rewards participants with additional revenue for taking on limited risk based on easily understood, actionable outcomes.

In Primary Care First, CMS will use a focused set of clinical quality and patient experience measures to assess quality of care delivered at the practice. A Primary Care First practice must meet standards that reflect quality care in order to be eligible for a positive performance-based adjustment to their primary care revenue. These measures were selected to be actionable, clinically meaningful, and aligned with CMS's broader quality measurement strategy. Measures include a patient experience of care survey, controlling high blood pressure, diabetes hemoglobin A1c poor control, colorectal cancer screening, and advance care planning.

CMS will assess quality of care based on a focused set of measures that are clinically meaningful for patients with complex, chronic needs and the serious illness population.

Primary Care First aims to improve quality, improve patient experience of care, and reduce expenditures. The model will achieve these aims by increasing patient access to advanced primary care services, and has elements specifically designed to support practices caring for patients with complex chronic needs or serious illness. The specific approaches to care delivery will be determined by practice priorities. Practices will be incentivized to deliver patient-centered care that reduces acute hospital utilization. Primary Care First is oriented around comprehensive primary care functions: (1) access and continuity; (2) care management; (3) comprehensiveness and coordination; (4) patient and caregiver engagement; and (5) planned care and population health.

Primary Care First aims to be transparent, simple, and hold practitioners accountable by:

- Providing payment to practices through a **simple payment structure**, including:
  - a payment mechanism that allows care to be driven by clinicians rather than administrative requirements and revenue cycle management;
  - a population-based payment to provide more flexibility in the provision of patient care along with a flat primary care visit fee; and
  - a performance-based adjustment providing an upside of up to 50% of revenue as well as a small downside (10% of revenue) incentive to reduce costs and improve quality, assessed and paid quarterly.
- Providing practice participants with **performance transparency**, through practitioner-identifiable information on their own and other practice participants' performance to enable and motivate continuous improvement.

Primary Care First provides the tools and incentives for practices to provide comprehensive and continuous care, with a goal of reducing patients' complications and overutilization of higher cost settings, leading to higher quality of care and reduced spending.

## Graphics

### Model Design Elements

Design Elements	CPC+ Track 1: Shift to Value, Support Comprehensive Care	CPC+ Track 2: Advance Care, Meet Patients' Needs	Primary Care First
<b>Care Delivery</b>	Practices implement core capabilities of comprehensive primary care.	Practices implement core and advanced capabilities of comprehensive primary care.	Practices have capabilities to deliver advanced primary care.  Practices focused on care for complex chronic or seriously ill patients have associated specialized capabilities.
<b>Payment</b>	<p><i>Care Management Fee:</i> Practices augment staffing and training to implement core care delivery model.</p> <p><i>Performance-Based Incentive Payment:</i> Practices are motivated to reduce utilization and improve quality and experience of care.</p>	<p><i>Comprehensive Primary Care Payment:</i> Practices have flexibility to deliver care based in the modality that best meets patient need.</p> <p><i>Care Management Fee:</i> Practices augment staffing and training to implement advanced care delivery model. Practices receive increased support for patients with complex needs.</p> <p><i>Performance-Based Incentive Payment:</i> Practices are motivated to reduce utilization and improve quality and experience of care.</p>	<p><i>Total Monthly Payment:</i> Practices are paid to deliver advanced primary care in and outside of the office. Practices focused on caring for patients with complex chronic needs and the seriously ill receive increased payments to support their care for these patient populations.</p> <p><i>Performance-Based Adjustment:</i> Practices are motivated to reduce acute hospital utilization (AHU) to reduce total costs of care, while meeting quality and experience of care thresholds.</p>
	<p><i>Beneficiary Attribution:</i> Claims-based with voluntary alignment opportunity</p> <p><i>Care Management Fee for Practice Investment: Yes</i> (\$15 average)</p> <p><i>Performance-Based Payment Potential</i></p>	<p><i>Beneficiary Attribution: Claims-based with voluntary alignment opportunity</i></p> <p><i>Care Management Fee for Practice Investment: Yes</i> (\$28 average)</p> <p><i>Performance-Based Payment Potential</i></p>	<p><i>Beneficiary Attribution: Claims-based with voluntary alignment opportunity; proactive identification and assignment of seriously ill and unmanaged beneficiaries</i></p> <p><i>Care Management Fee for Practice Investment: No</i></p>

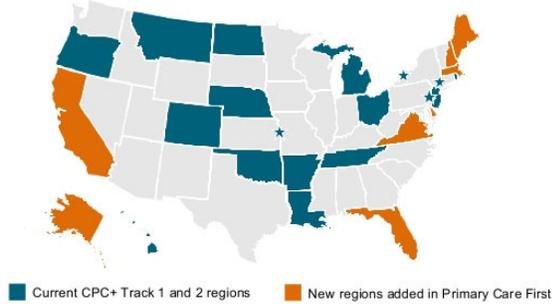
Design Elements	CPC+ Track 1: Shift to Value, Support Comprehensive Care	CPC+ Track 2: Advance Care, Meet Patients' Needs	Primary Care First
	<p><i>(Approximate % of Primary Care Revenue): ~10%</i></p> <p><i>Underlying Payments to Practice: Standard fee-for-service</i></p>	<p><i>(Approximate % of Primary Care Revenue): ~20%</i></p> <p><i>Underlying Payments to Practice: Reduced FFS with prospective Comprehensive Primary Care Payment</i></p>	<p><i>Performance-Based Payment Potential (Approximate % of Primary Care Revenue): ~50% as well as a small downside (~10%)</i></p> <p><i>Underlying Payments to Practice: Risk-adjusted professional population-based payment (PBP) with a flat primary care visit fee</i></p>
<b>Beneficiary Engagement Incentives</b>	Not Applicable	Not Applicable	<p>In an effort to increase access to primary care and patient engagement, CMS is exploring beneficiary engagement incentives and payment waivers. Further details will be available in the Request for Application and Participation Agreement.</p>
<b>Data Sharing</b>	<p>Medicare FFS expenditure and utilization data are delivered, as requested by participating practices, clearly and actionably on a quarterly basis at the practice-level, including beneficiary-level data available only to the Track 1 practice for their attributed beneficiaries.</p>	<p>Medicare FFS expenditure and utilization data are delivered, as requested by participating practices, clearly and actionably on a quarterly basis at the practice-level, including beneficiary-level data available only to the Track 2 practice for their attributed beneficiaries.</p>	<p>Medicare FFS expenditure and utilization data and Medicaid data, as available, are delivered, as requested by participating practices in accordance with applicable law, clearly and actionably on a quarterly basis at the practice- and National Provider Identifier (NPI)-level with identifiable information on performance of the participating practitioners.</p> <p>Practices can receive claims line feeds and can incorporate claims data into their own analytic tools.</p>

## Primary Care First Regions



**Primary Care First Will Be Offered in 26 States and Regions Beginning in 2020**

In 2020, Primary Care First will include 26 diverse regions:

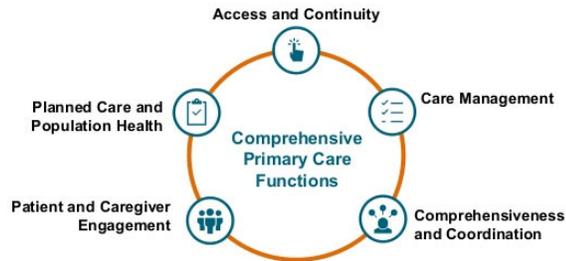


## Model Aims/Goals



**Participants Achieve Model Aims Through Innovations in Their Care Delivery**

PCF participants are incentivized to deliver evidence-based interventions across 5 comprehensive primary care functions:



## Implementation



### Practices Have the Freedom to Innovate While Implementing Core Functions of Comprehensive Primary Care

Comprehensive Primary Care Function	PCF Intervention
 <b>Access and Continuity</b>	<ul style="list-style-type: none"> <li>Provide 24/7 access to a care team practitioner with real-time access to the EHR</li> </ul>
 <b>Care Management</b>	<ul style="list-style-type: none"> <li>Provide risk-stratified care management</li> </ul>
 <b>Comprehensiveness and Coordination</b>	<ul style="list-style-type: none"> <li>Integrate behavioral health care</li> <li>Assess and support patients' psychosocial needs</li> </ul>
 <b>Patient and Caregiver Engagement</b>	<ul style="list-style-type: none"> <li>Implement a regular process for patients and caregivers to advise practice improvement</li> </ul>
 <b>Planned Care and Population Health</b>	<ul style="list-style-type: none"> <li>Set goals and continuously improve upon key outcome measures</li> </ul>

CMS Primary Care Initiatives  Center for Medicare & Medicaid Innovation 7

## Partnerships



### CMS is Committed to Partnering with Aligned Payers in Selected Regions

In PCF, CMS will encourage other payers to engage practices on similar outcomes. **CMS is soliciting interested payers starting in summer 2019.**



#### Multi-payer alignment promotes:

- An alternative to fee-for-service payments
- Performance-based incentive opportunity
- Practice- and participant-level data on cost, utilization, and quality
- Alignment on practice quality and performance measures
- Broadened support for seriously ill populations

## Links

- Overview: <https://innovation.cms.gov/initiatives/primary-care-first-model-options/>
- Informational Webinar Series Slides: <https://innovation.cms.gov/Files/slides/pcf-info-webinar-series-slides.pdf>
- Fact Sheet: <https://www.cms.gov/newsroom/fact-sheets/primary-care-first-foster-independence-reward-outcomes>
- Press Release: <https://www.cms.gov/newsroom/press-releases/hhs-news-hhs-deliver-value-based-transformation-primary-care>
- One-Pager: <https://innovation.cms.gov/Files/x/primary-cares-initiative-onepager.pdf>

## PRICEWATERHOUSECOOPERS'S (PWC) "POPULATION HEALTH: SCALING UP" (2016)

### Type

Resource – Health Care Delivery Model

### Summary

The healthcare industry has made strides in population health, which aims to improve care and outcomes while reducing spending. So far, most efforts have been narrow, with promising results. These early results signal the full potential of population health if scaled across geographies, diseases and the continuum of care. Yet many organizations still struggle to scale their efforts – an essential step as they take on more risk in value-based payment contracts.

Seventy percent of clinicians surveyed by PwC's Health Research Institute (HRI) reported that they do not participate in risk-based, incentive-based or shared savings reimbursement models. Yet the US Centers for Medicare and Medicaid Services has made adoption of these payment models a major goal, aiming to have 50% of Medicare payments in value-based models by 2018.<sup>2</sup> Private payers also are striking risk-based deals with health systems and pharmaceutical companies. Healthcare organizations with evidence that their population health programs are working well on a large scale are more likely to be rewarded in these deals.

HRI interviewed executives from leading health organizations, concluding that the keys to scaling population health programs lie in developing full-service care delivery networks with strong care management, engaging patients through community resources and running data driven operations (see Figure 1). Scaled-up population health management calls for skills and resources that no single organization can provide on its own. Partnerships and targeted acquisitions from inside and outside the traditional health system are its lifeblood.

### Recommendations

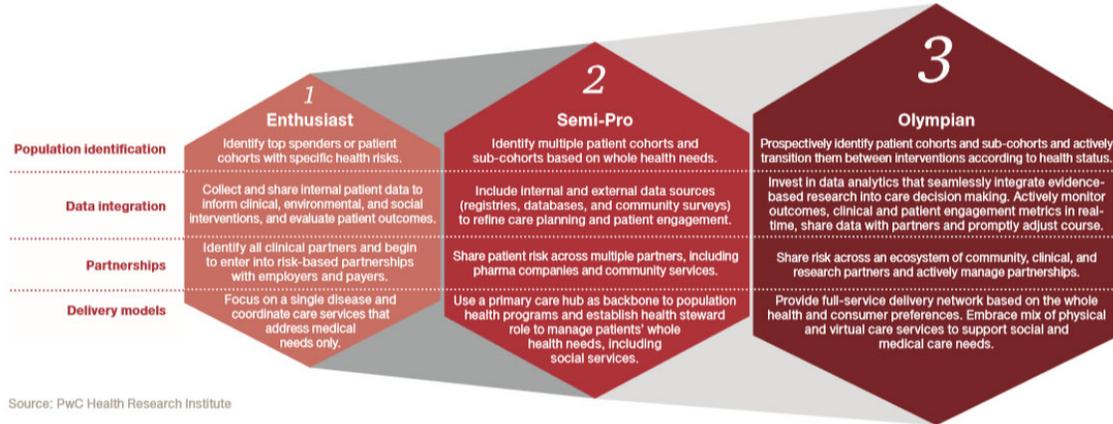
- **Pick a major:** Industry players must understand how population health supports their missions and fits into their existing business models before choosing strategies. Some may adopt full population health business models while others may utilize them to support other programs. For example, academic medical centers may "minor" in population-based care at the community level while creating best-in class acute and chronic health bundled products that can support population health programs. This approach makes best use of their assets: regional or national brands, state-of-the-art facilities and advanced capabilities to treat very complex, episodic patient cases.
- **Think retail.** HRI research shows that today's consumers – young and old – are expecting health providers to offer the personalized levels of service and convenience they receive from other industries. Population health programs should apply a retail lens to care delivery with the understanding that consumers want care options that are targeted to their preferences. More than 80% of consumers surveyed by HRI said that

they are open to non-traditional ways of receiving care, such as virtual visits, care in the home and at-home diagnostics.<sup>30</sup> “Healthcare is just like retail. Bar none, it’s what the patient needs,” said Dave Baker, chief enterprise architect at Ascension Information Services, who has spent most of his career developing technology strategies for retailers and financial services firms. Baker is developing a strategy to expand population health platforms across Ascension’s operations in 24 states and the District of Columbia. He thinks retail’s 360-degree view approach to understanding customers and planning how and where to place services could be applied in healthcare. Figure 4 identifies population health opportunities for new entrants to the health industry - such as retailers - and other industry stakeholders.

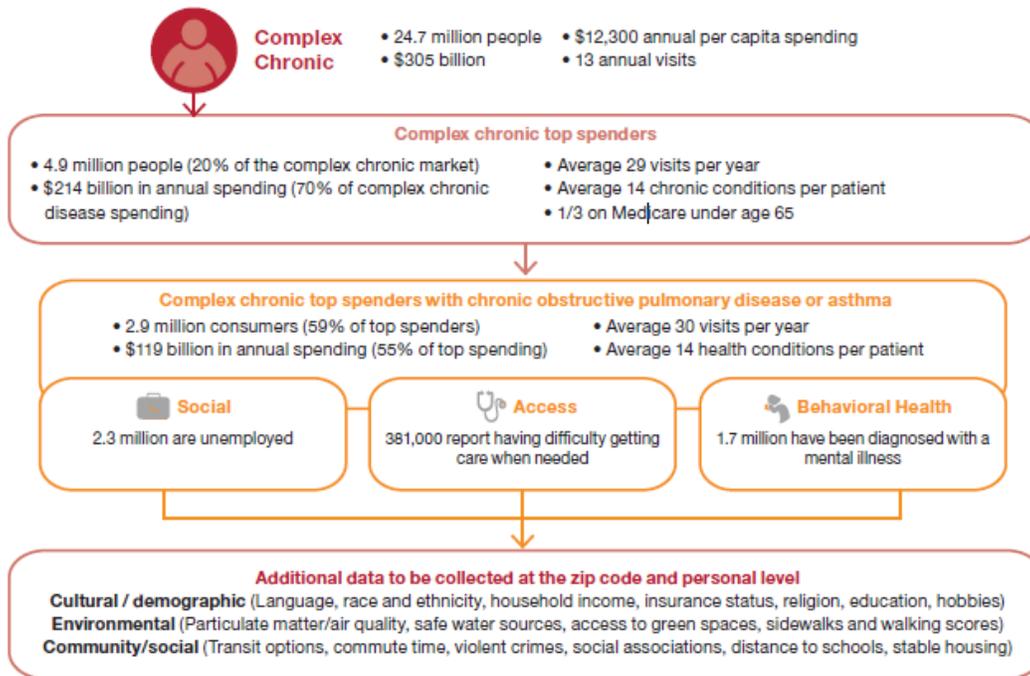
- **Establish the funding mechanism.** Organizations should design a payer strategy for population health to manage risk and sustain operations. Some providers are partnering with insurers to outsource activities such as risk score optimization, actuarial analysis and claims administration. Others are on their way to becoming licensed health plans, a growing trend in a value-based health economy.
- **Plan for early losses and contract accordingly.** Organizations should evaluate their abilities to tolerate risk and assess their capital positions to support population health strategies. Almost half of Medicare accountable care organizations failed to break even after their first year. Organizations should structure partnership contracts so that risk is shared appropriately among all partners in their population health delivery networks. They may consider a shared savings model in which dollars saved are divided into bonus payments, operational reinvestments and patient engagement incentives.
- **Redirect pent up demand.** Organizations with excess demand may have smoother transitions as they operate more efficiently. They can replace lost volume, continue to operate at high capacity and improve their returns on fixed costs. They should continue to generate referrals, expand access and strive for patient loyalty.
- **Evaluate often, adjust promptly.** Population health programs require heavy operations investments and have high fixed costs. Organizations should build care services around patient cohorts and actively monitor health outcomes. They should regularly reevaluate whether patients assigned to each group still belong there. Staff productivity should improve by actively managing patients between cohorts and levels of care.

## Graphics

**Figure 1: The path to proficiency in population health**



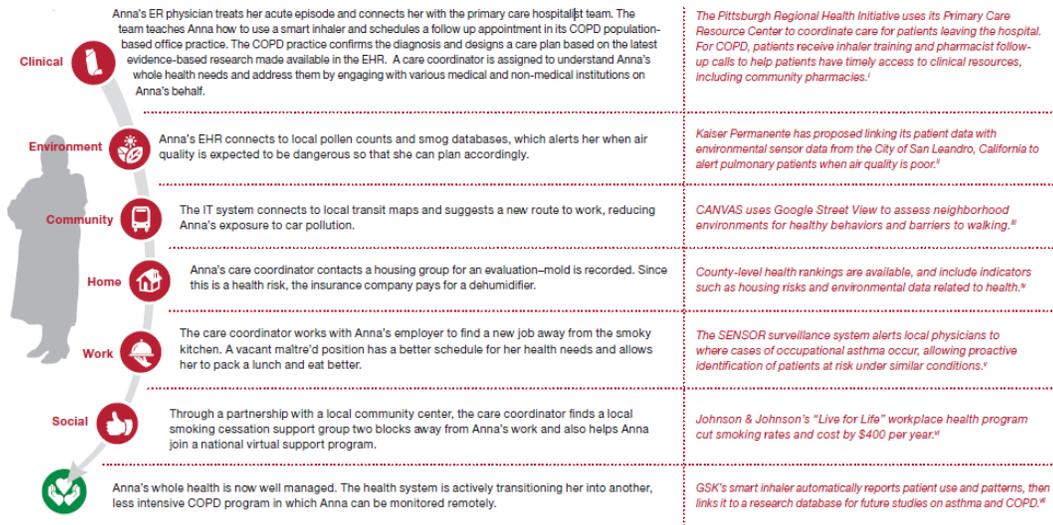
**Figure 2: A closer look at the complex chronic disease market reveals social, access and behavioral health needs**



Source: HRI analysis of 2013 Medical Expenditure Panel Survey (MEPS) data on consumer health spending and demographic characteristics. For more information on primary care consumer markets, read HRI's Primary Care in the New Health Economy: Time for a makeover.

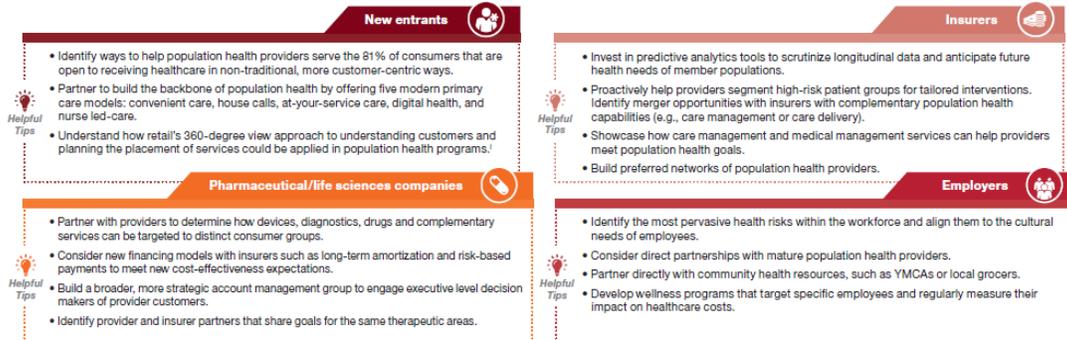
**Figure 3: The impact of integrating non-clinical data into care delivery; Anna is a 48 year-old nanny who also works as a line cook and is a moderate smoker. After years of untreated asthma, she**

recently ended up in the ER. Read how a population health program that combines leading practices can meet Anna's whole health needs.



<sup>1</sup> Information shared with PwC's Health Research Institute by Robert Ferguson and Glen Thomas in September, 2015.

**Figure 4: Population health opportunities for insurers, employers, pharma/life sciences companies and new entrants**



<sup>1</sup> PwC Health Research Institute "Primary care in the New Health Economy: Time for a makeover," November, 2015.  
Source: PwC Health Research Institute analysis

**Links**

- PwC Health Research Institute Spotlight: "Population Health: Scaling up" Report: <https://www.pwc.com/us/en/health-industries/health-research-institute/publications/pdf/pwc-hri-population-health.pdf>
- PwC Health Research Institute: <https://www.pwc.com/us/en/industries/health-industries/health-research-institute.html>

# PRIMARY CARE TRANSFORMATION: NO LONGER A TASK OF ONE

## Type

Blog Post

## Summary

Evidence is mounting about the importance of robust primary care in achieving the Triple Aim of advancing quality of care, reducing costs, and improving the patient experience. Primary care initiatives across the country have shown that enhancing primary care can coordinate service delivery to the benefit of both patients and clinicians. In Medicare accountable care organizations (ACOs), primary care transformation has been foundational for shifting to a team-based approach that reaps benefits for patients, providers, and payers.

Health care leaders and our government have invested both money and effort in improving primary care. The goal is a more patient-centered approach that prevents costly hospitalizations or other interventions for serious health conditions. In addition to the Triple Aim, this approach can lead to greater physician satisfaction, an important issue in light of widespread concern about physician burnout that is especially prevalent in our country's rural communities.

Years of experience tell us that primary care must be a team sport. In the next few years, physicians must move from fee-for-service to fee-for-value to maintain their incomes. We can't continue to ask physicians to take on more and more tasks. The only way to accomplish true practice transformation is to engage the entire clinical team and non-clinical staff.

## Graphics

**Figure: Savings and Losses by ACO Size**



## Links

- The Playbook Blog Post: [https://www.bettercareplaybook.org/\\_blog/2019/21/primary-care-transformation-no-longer-task-one](https://www.bettercareplaybook.org/_blog/2019/21/primary-care-transformation-no-longer-task-one)
- Caravan Health: <https://caravanhealth.com/>
- Empower Your Nurses: Building Your Primary Care Capacity: <https://caravanhealth.com/thought-leadership/articles/empower-nurses-building-primary-care-capacity/>
- Ace Quality & Population Health: <https://caravanhealth.com/thought-leadership/webinars/webinar-ace-quality-population-health/>

## CARE REDESIGN SURVEY: TO IMPROVE CHRONIC DISEASE CARE, CHANGE THE PAYMENT MODEL

### Type

NEJM Catalyst, Insights Report, Article

### Summary

Analysis of the NEJM Catalyst Insights Council Survey on Chronic Care Models. Qualified executives, clinical leaders, and clinicians may join the Insights Council and share their perspectives on health care delivery transformation.

Weil suggests the health care industry has to temper its need for rapid return on investment and follow the guiding principle of "doing positive things for patients, even if sometimes that positive impact may not be realized in the short term." Some diagnoses, such as depression, may or may not register improvements for years, yet "You have to be comfortable with making an upfront investment and assessing over extended periods to see improved clinical outcomes as well as improvement in total cost of care."

Many health care organizations are reasonably effective in treating chronic diseases, but they are limited from doing better by fee-for-service payment, which remains the predominant payment model in the United States. The latest NEJM Catalyst Insights Council report serves as a snapshot in time, showing the intent of health care providers to be proactive in treating chronic disease, but limitations in their ability to address population health.

"Although a very large portion of the health care spend involves managing chronic conditions, many health systems can't be more proactive because we get paid to take care of people when they are sick. We aren't paid to review populations of patients," she says, emphasizing that "the business model influences how much you can spend on proactive versus reactive care."

The top three challenges for chronic disease management, as listed by respondents, clearly demonstrate this constraint. Lack of time for clinicians to see patients with chronic conditions (selected by 44% of respondents), insufficient care coordination to ensure best outcomes (39%), and lack of patient resources for self-management (27%) are largely resolved in value-based care and capitated models, according to Compton-Phillips.

"There are many opportunities to be proactive for any illness. It could mean that every patient who's screened for diabetes and determined to have early illness receives aggressive education," Weil says. "It could mean dedicating staff to ensure that diabetes-diagnosed patients schedule and attend necessary appointments. And it could mean that patients with uncontrolled sugar receive an automatic referral to an endocrinologist."

## Methodology

- The Chronic Care Models survey was conducted by NEJM Catalyst, powered by the NEJM Catalyst Insights Council.
- The NEJM Catalyst Insights Council is a qualified group of U.S. executives, clinical leaders, and clinicians at organizations directly involved in health care delivery, who bring an expert perspective and set of experiences to the conversation about health care transformation. They are change agents who are both influential and knowledgeable.
- In May 2019, an online survey was sent to the NEJM Catalyst Insights Council.
- A total of 587 completed surveys are included in the analysis. The margin of error for a base of 587 is +/- 4.0% at the 95% confidence interval.

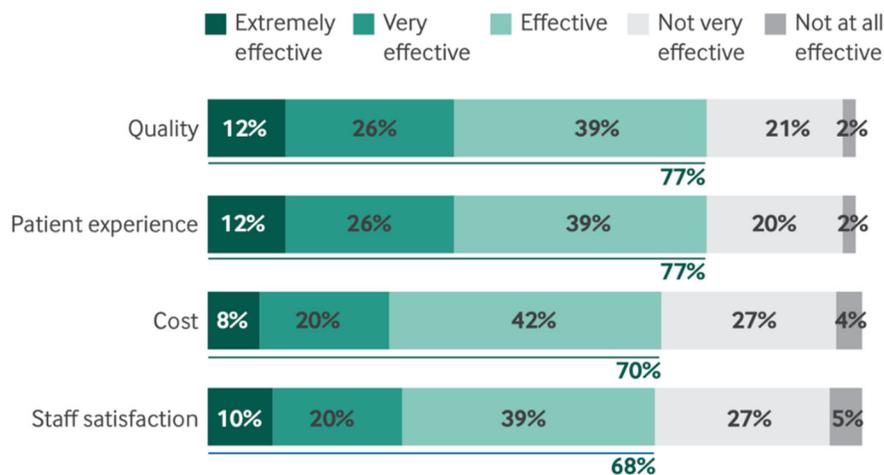
## Graphics

**Figure 1: How productive is your organization's approach to providing care to patients with chronic conditions?**



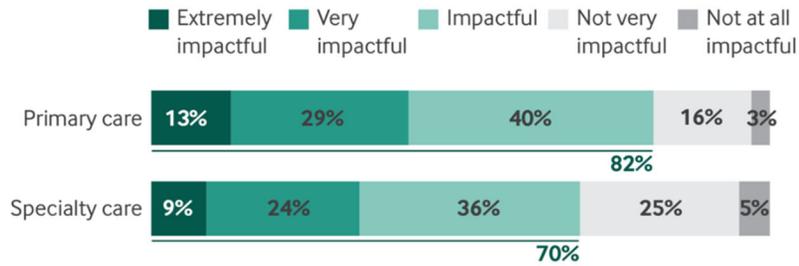
Base: 587  
NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

**Figure 2: How effective do you consider your organization's chronic disease management programs in the following aspects; quality, patient experience, cost, and staff satisfaction?**



Base: 587  
NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

**Figure 3: How impactful are your organization's primary care and specialty care on chronic disease management?**



Base: 587  
NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

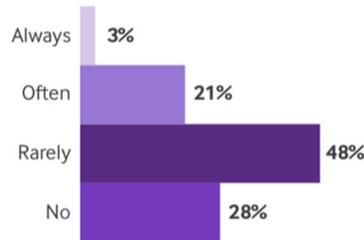
**Figure 4: What are the top two challenges facing chronic disease management care at your organization today?**



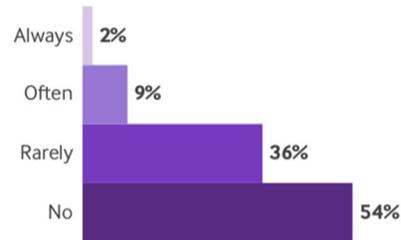
Base: 587 (multiple responses)  
NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

**Figure 5: Telehealth and Remote Monitoring Are Little Used and Ineffective.**

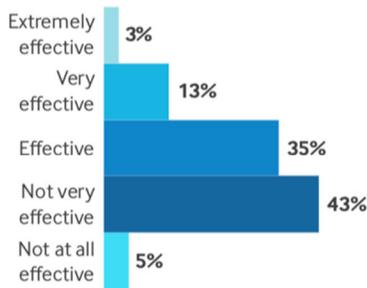
Does your organization currently use telehealth/telemonitoring tools to care for patients with chronic diseases?



Does your organization currently integrate data from remote monitoring devices such as smartphones, smartwatches, Fitbits, and other wearables to help manage care for patients with chronic diseases?

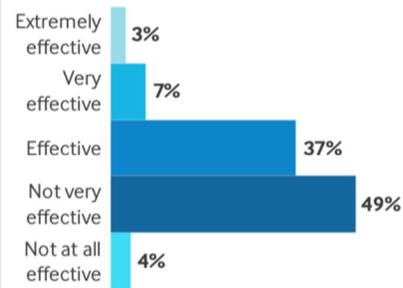


How effective are your organization's telehealth/telemonitoring programs at helping to manage care for patients with chronic diseases?



Base: 421  
Among those currently using telehealth/telemonitoring tools

How effective are your organization's remote monitoring device programs at helping to manage care for patients with chronic diseases?



Base: 271  
Among those using remote monitoring device programs

Base: 587

NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

**Figure 6: How effective is your organization's wellness incentives program at helping to manage care for patients with Chronic diseases?**

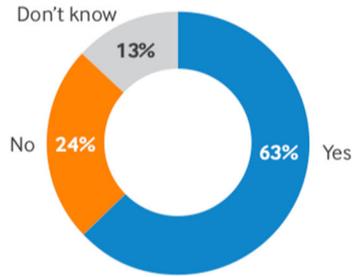


Base: 368 (Among those who offer a wellness program)

NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

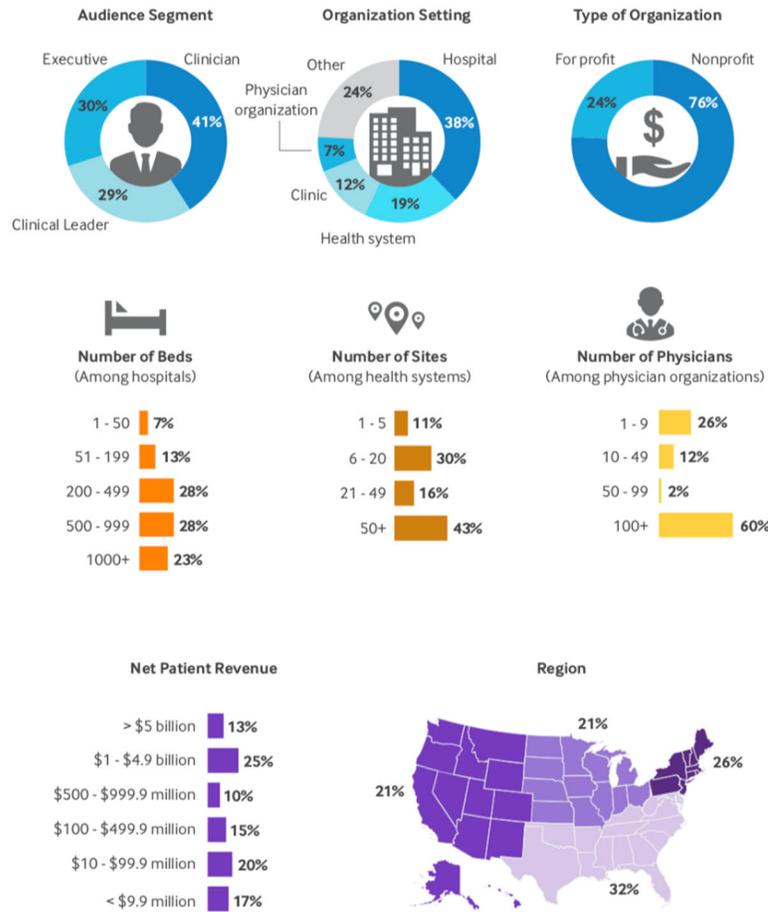
**Figure 7: Does your organization offer a wellness program to promote healthy behaviors to prevent chronic diseases?**

Does your organization offer a wellness program to promote healthy behaviors to prevent chronic diseases?



Base: 587  
NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

**Figure 8: Respondant profile.**



Base = 587  
NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

## Links

- Article Link: [https://cdn2.hubspot.net/hubfs/558940/Insights%20Council%20Monthly%20-%20Files/To%20Improve%20Chronic%20Disease%20Care%20Change%20the%20Payment%20Model.pdf?\\_hssc=23193637.1.1568208402741&\\_hstc=23193637.49fc9417d378e03b45e359c06b0ebecf.1568208402741.1568208402741.1568208402741.1&\\_hsfp=796419885&hsCtaTracking=e879369c-92da-457a-a287-51983fe23773%7C26fb7f94-d170-439b-a73e-91f67228a6c9](https://cdn2.hubspot.net/hubfs/558940/Insights%20Council%20Monthly%20-%20Files/To%20Improve%20Chronic%20Disease%20Care%20Change%20the%20Payment%20Model.pdf?_hssc=23193637.1.1568208402741&_hstc=23193637.49fc9417d378e03b45e359c06b0ebecf.1568208402741.1568208402741.1568208402741.1&_hsfp=796419885&hsCtaTracking=e879369c-92da-457a-a287-51983fe23773%7C26fb7f94-d170-439b-a73e-91f67228a6c9)

## IOM BETTER CARE AT LOWER COST (2012)

### Type

Committee Report

### Summary

America's health care system has become far too complex and costly to continue business as usual. Pervasive inefficiencies, an inability to manage a rapidly deepening clinical knowledge base, and a reward system poorly focused on key patient needs, all hinder improvements in the safety and quality of care and threaten the nation's economic stability and global competitiveness. Achieving higher quality care at lower cost will require fundamental commitments to the incentives, culture, and leadership that foster continuous "learning", as the lessons from research and each care experience are systematically captured, assessed, and translated into reliable care.

In the face of these realities, the IOM convened the Committee on the Learning Health Care System in America to explore these central challenges to health care today. The product of the committee's deliberations, *Best Care at Lower Cost*, identifies three major imperatives for change: the rising complexity of modern health care, unsustainable cost increases, and outcomes below the system's potential. But it also points out that emerging tools like computing power, connectivity, team-based care, and systems engineering techniques – tools that were previously unavailable – make the envisioned transition possible, and are already being put to successful use in pioneering health care organizations. Applying these new strategies can support the transition to a continuously learning health system, one that aligns science and informatics, patient-clinician partnerships, incentives, and a culture of continuous improvement to produce the best care at lower cost. The report's recommendations speak to the many stakeholders in the health care system and outline the concerted actions necessary across all sectors to achieve the needed transformation.

### Recommendations

- Improve the capacity to capture clinical, care delivery process, and financial data for better care, system improvement, and the generation of new knowledge. Data generated in the course of care delivery should be digitally collected, compiled, and protected as a reliable and accessible resource for care management, process improvement, public health, and the generation of new knowledge.
- Streamline and revise research regulations to improve care, promote the capture of clinical data, and generate knowledge. Regulatory agencies should clarify and improve regulations governing the collection and use of clinical data to ensure patient privacy but also the seamless use of clinical data for better care coordination and management, improved care, and knowledge enhancement.
- Accelerate integration of the best clinical knowledge into care decisions. Decision support tools and knowledge management systems should be routine features of health

care delivery to ensure that decisions made by clinicians and patients are informed by current best evidence.

- Involve patients and families in decisions regarding health and health care, tailored to fit their preferences. Patients and families should be given the opportunity to be fully engaged participants at all levels, including individual care decisions, health system learning and improvement activities, and community-based interventions to promote health.
- Promote community-clinical partnerships and services aimed at managing and improving health at the community level. Care delivery and community-based organizations and agencies should partner with each other to develop cooperative strategies for the design, implementation, and accountability of services aimed at improving individual and population health.
- Improve coordination and communication within and across organizations. Payers should structure payment and contracting to reward effective communication and coordination between and among members of a patient's care team.
- Continuously improve health care operations to reduce waste, streamline care delivery, and focus on activities that improve patient health. Care delivery organizations should apply systems engineering tools and process improvement methods to improve operations and care delivery processes.
- Continuously improve health care operations to reduce waste, streamline care delivery, and focus on activities that improve patient health. Care delivery organizations should apply systems engineering tools and process improvement methods to improve operations and care delivery processes.
- Increase transparency on health care system performance. Health care delivery organizations, clinicians, and payers should increase the availability of information on the quality, prices and cost, and outcomes of care to help inform care decisions and guide improvement efforts.
- Expand commitment to the goals of a continuously learning health care system. Continuous learning and improvement should be a core and constant priority for all participants in health care – patients, families, clinicians, care leaders, and those involved in supporting their work.

## Graphics

**Figure 1: Time requirements for a primary care physician to treat a standard patient panel.**

The average family physician spends...



Following guidelines would require that physician to spend...



**Figure 1: Number of journal articles published on health care topics per year from 1970 to 2010. Publications have increased steadily over 40 years, with the rate of increase becoming more pronounced starting approximately in 2000.**

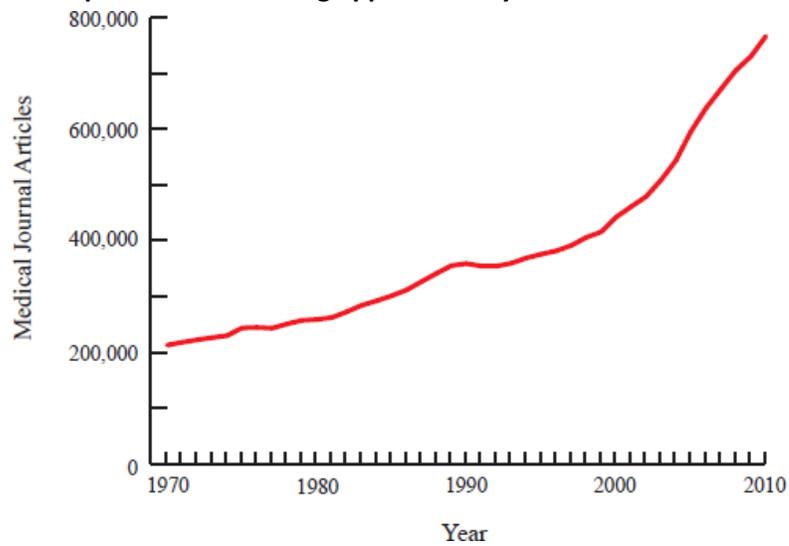
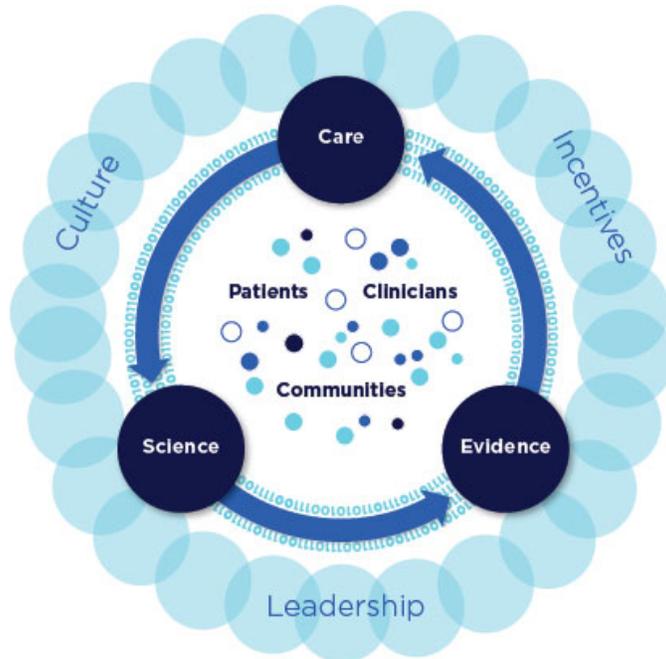


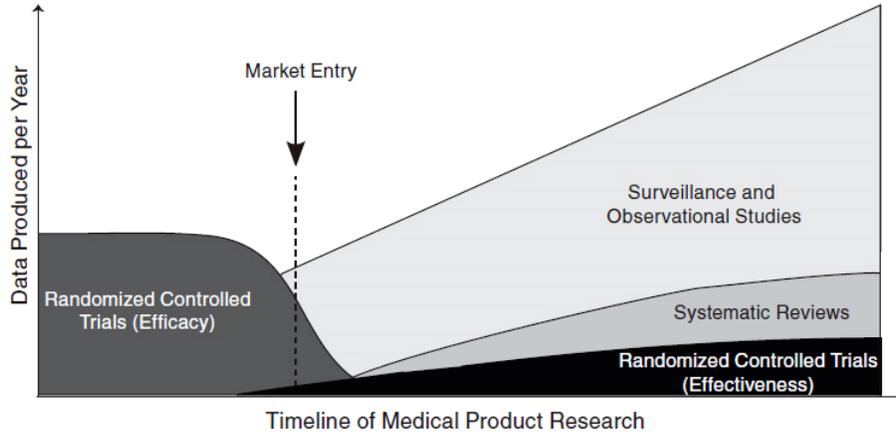
Figure 2: Schematic of the health care system today.



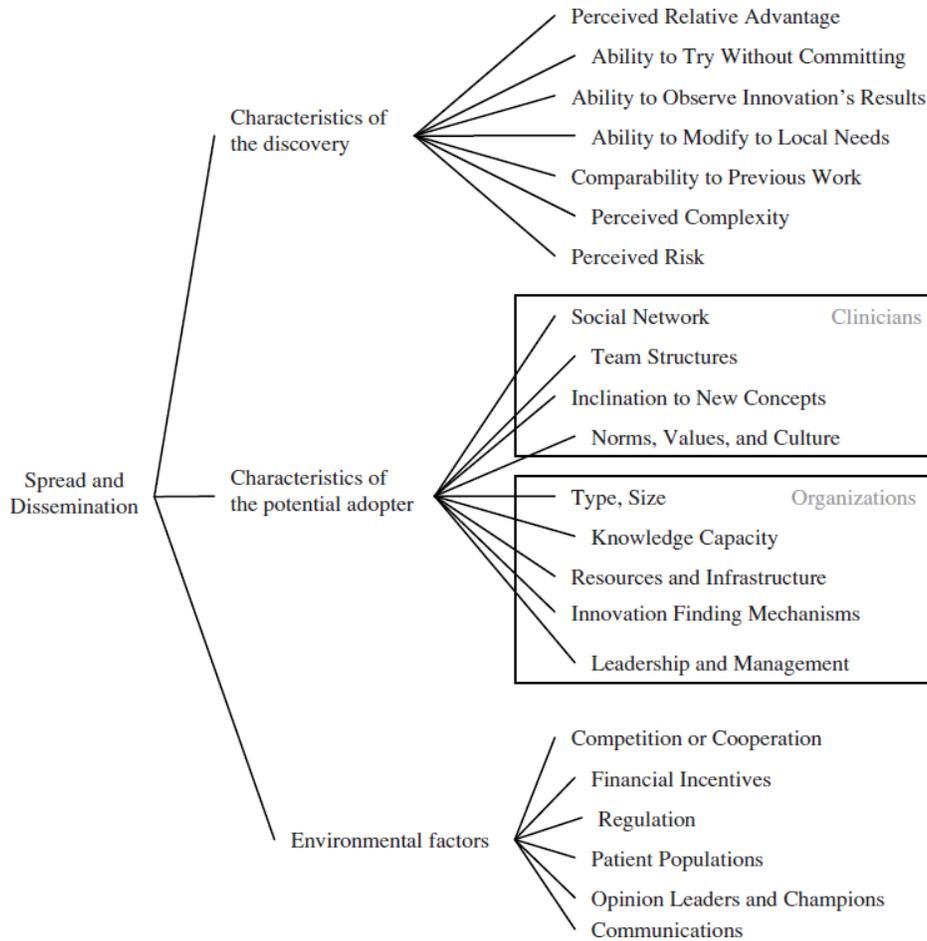
Figure 3: Schematic of the continuously learning health care system.



**Figure 4: Different types of research are needed at different stages of a medical product's life cycle. Early trials will need to focus on therapeutic efficacy, while later research will need to focus on comparative effectiveness and surveillance.**



**Figure 5: Multiple factors affect whether new clinical knowledge is disseminated and implemented across the health care system.**



## Links

- Study Report Highlights: <http://www.nationalacademies.org/hmd/Reports/2012/Best-Care-at-Lower-Cost-The-Path-to-Continuously-Learning-Health-Care-in-America.aspx>;
- Study Report Recommendations: [http://www.nationalacademies.org/hmd/~media/Files/Report%20Files/2012/Best-Care/Best%20Care%20at%20Lower%20Cost\\_Recs.pdf](http://www.nationalacademies.org/hmd/~media/Files/Report%20Files/2012/Best-Care/Best%20Care%20at%20Lower%20Cost_Recs.pdf);
- Study Report – Full: <https://www.nap.edu/read/13444/chapter/1>

# NASEM EVALUATION OF THE DEPARTMENT OF VETERANS AFFAIRS MENTAL HEALTH SERVICES (2018)

## Type

Committee Report

## Summary

A committee of the National Academies of Sciences, Engineering, and Medicine will comprehensively assess the quality, capacity, and access to mental health care services for veterans who served in the Armed Forces in Operation Enduring Freedom, Operation Iraqi Freedom, or Operation New Dawn (OEF/OIF/OND). The committee will assess the spectrum of mental health services available across the entire US Department of Veterans Affairs (VA).

The scope of this assessment will include analysis not only of the quality and capacity of mental health care services within the VA, but also barriers faced by patients in utilizing those services. Types of evidence to be considered by the committee in its assessment include relevant scientific literature and other documents, interviews with VA mental health professionals, survey data to be provided by the VA, and results from surveys of veterans to be conducted independently by the committee. Site visits will be conducted to at least one VA medical center in each of 21 Veterans Integrated Service Networks across the country.

In addition, the committee will hold an open meeting of experts to discuss the Secretary's plan for the development and implementation of performance metrics and staffing guidance. The committee will provide a final report with recommendations to the Secretary of the VA regarding overcoming barriers and improving access to mental health care in the VA, as well as increasing effectiveness and efficiency.

## Key Findings

There is a substantial unmet need for mental health services in the OEF/OIF/OND population as identified using standard screeners of mental health conditions or veteran-reported diagnoses. Approximately half of OEF/OIF/OND veterans surveyed by the committee who may have a need for mental health care services do not use VA or non-VA mental health care services. These results are consistent with several other studies of VA mental health care and demonstrate that a large proportion of veterans do not receive any treatment following diagnosis of PTSD, SUDs, or depression. Additionally, more than half of veterans who have a mental health need do not perceive a need for mental health services, which suggests that some veterans do not seek care because they do not perceive that they personally have a need.

A number of VA health system factors may facilitate or be barriers to veterans' willingness to seek care.

- A lack of awareness about how to connect to the VA for mental health care is pervasive among OEF/OIF/OND veterans. Among OEF/OIF/OND veterans who have a mental health need and who have not sought VA mental health services, their main reasons for

not doing so are that they do not know how to apply for VA mental health care benefits, they are unsure whether they are eligible, or they are unaware that the VA offers mental health care benefits.

- The process of accessing VA mental health services has been burdensome and unsatisfying for many OEF/OIF/OND veterans. The changes that OEF/OIF/OND veterans would like to see at the VA include, for example, making the process for scheduling appointments easier and improving customer service.
- From a systems perspective, the VA can facilitate access by ensuring VA leadership and management acumen are focused on aligning resources to veteran needs. Chronic workforce problems exist that have a significant impact on the care veterans receive. Complex eligibility criteria and confusing procedures to transition between the Department of Defense (DoD) and the VA are examples of policy-related barriers veterans encounter when seeking VA health care.

Many veterans' personal factors may facilitate or be barriers to veterans' willingness to seek care.

- OEF/OIF/OND veterans who have significant others (for example, family members and friends) who support their seeking treatment are much more likely to use VA health care services than veterans without such support.
- The use of the Internet or the phone to receive mental health care is acceptable to nearly half of OEF/OIF/OND veterans. Younger veterans tended to be more open to obtaining mental health care using the Internet.
- Transportation to and the convenience of VA medical facilities may pose challenges for many OEF/OIF/OND veterans who live far from VA facilities or who have chronic health conditions that make traveling long distances difficult.
- Additional barriers to seeking mental health care include employment concerns (spending time off from work, harm to their careers, denial of security clearance, and receiving less confidence and respect from co-workers and supervisors) and fears that discrimination could affect their ability to own guns, lead to a loss of contact with or custody of their children, or lead to a loss of medical or disability benefits. A majority of OEF/OIF/OND veterans who use the VA report positive aspects of and experiences with VA mental health services. These aspects of care include the availability of needed services, the privacy and confidentiality of medical records, the ease of using VA mental health care, the mental health care staff's skill and expertise, and the staff's courtesy and respect toward patients.

Many OEF/OIF/OND veterans receive high-quality mental health care from the VA; however, the VA's ability to deliver high-quality mental health care consistently to all veterans across facilities and subpopulations is an ongoing challenge. While evidence-based mental health services are available to veterans and are mostly concordant with clinical standards and policy mandates, there are significant gaps in care delivery. Problems with adequate staffing, physical

infrastructure, and providing timely care appear to contribute to the variability in the VA's delivery of evidence-based mental health services. Burnout and job-related stress among VA mental health providers may contribute to high turnover.

The VA dedicates resources to and has a history of implementing innovative practices in the areas of patient care, health information technology, and quality monitoring. • The VA has implemented innovative and evidence-based models of collaborative and integrated care to improve the delivery of mental health treatment.

- The VA has long-standing experience and expertise with electronic health records (EHRs), telehealth, virtual care technologies, and tele-mental health research and app development.
- The VA has many data systems tracking patient care; however, it has not yet operationalized a comprehensive system for collecting health outcome data with standardized patient-reported outcome measures. • The VA is using some community-based mental health resources to serve veterans – for example, through the Choice Program and partnerships with organizations specializing in veterans' services – to help alleviate the VA's workforce and infrastructure problems. However, the VA does not collect adequate information about the approaches that it uses to ensure care coordination and quality monitoring for services the VA offers through contracts with community providers.

## Recommendations

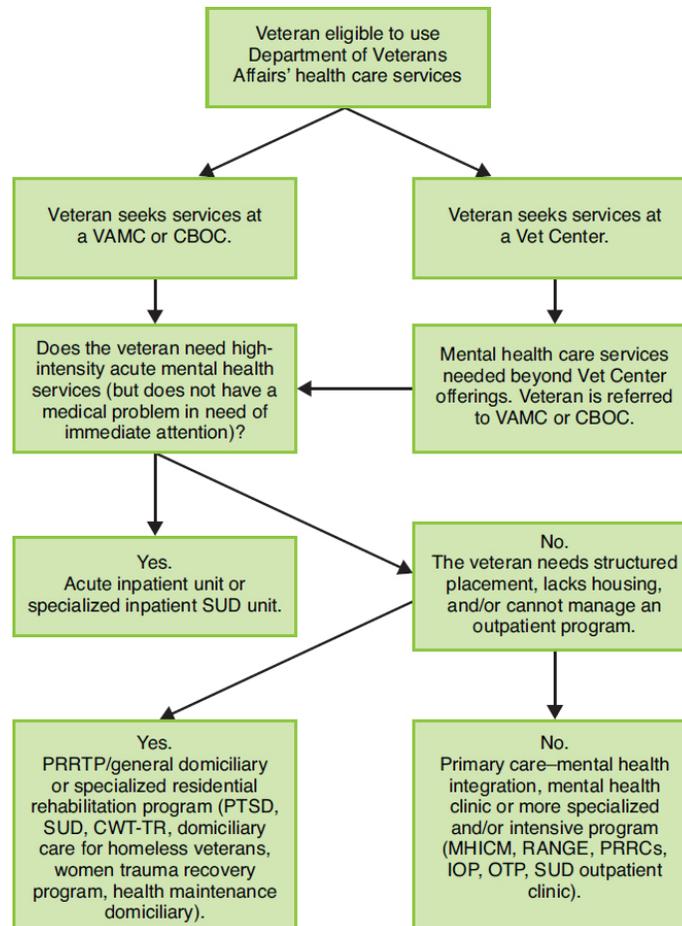
- Recommendation 16-1: The VA should set a goal of becoming a high-reliability provider of high-quality mental health care services throughout the VA health care system within 3 to 5 years. The VA should develop a comprehensive system-wide strategic plan for providing readily accessible, high-quality, integrated mental health care services to improve the overall health and well-being of veterans. This plan should have a 3- to 5-year horizon, and its implementation should be regularly monitored, reviewed, and updated, as needed, during that time.
- Recommendation 16-2: Via policy changes and other approaches, the VA should eliminate barriers to accessing mental health care experienced by OEF/ OIF/OND veterans. The VA should adopt additional strategies to engage veterans, expand outreach efforts beyond the initial post-deployment period, and improve its transitional services as well as VBA and VHA processes with the goal of enhancing and facilitating access to mental health care.
- Recommendation 16-3: The VA should examine how its facilities interface with community resources and compile an inventory of VA–community collaborations with the objective of identifying exemplary or model collaborations and best practices for forging community partnerships.
- Recommendation 16-4: The VA should take steps to ensure that its diverse patient population receives readily accessible, high-quality, integrated mental health care

services. Areas to focus on are service delivery, workforce issues, and resource allocation (including the logistics of care delivery and the structure of clinical space).

- Recommendation 16-5: The VA should evaluate whether all types of mental health care workers could be brought under Title 38 U.S.C. and if this might alleviate some workforce shortages. If the assessment indicates that this reclassification would have a salutary effect, then the VA should pursue the necessary solutions.
- Recommendation 16-6: The VA should conduct a broad examination of its various types of facilities to assess how it could re-align its human resources and capital assets to better meet the demand for mental health care services. Adequate clinical and office space and staffing are necessary to reduce wait times, lessen administrative and clerical burden on clinicians, improve the fidelity of treatment, and increase adherence to clinical practice guidelines.
- Recommendation 16-7: The VA should leverage its existing health technology infrastructure and internationally recognized expertise in telehealth and virtual care to substantially expand the scale and quality of its tele-mental health and technology-supported mental health services for clinical, research, and educational purposes.
- Recommendation 16-8: The VA should take a lead role nationally in advancing quality management in mental health care. Toward this end, the VA should take steps to accelerate the development and use of standardized performance measures to assess and improve care for mental health conditions in veterans. It should engage with performance measure development organizations to develop a robust portfolio of mental health care performance measures. As part of its comprehensive mental health care strategic plan, the VA should articulate how performance measures will be rolled out and implemented, maintained, and used for quality improvement and research purposes, and otherwise managed.

## Graphics

**Figure 3-1: Algorithm to determine appropriate placement of veterans within the system of mental health care at the Department of Veterans Affairs**



**Table 4-3: Prevalence of Mental Health Conditions and Suicide Rates in Veteran and Non-Veteran Populations**

	<b>Veteran Population (%)</b>	<b>Non-Veteran Population (%)</b>
PTSD	11–23	6.8
GAD	8–12	6
MDD	4.7–6.5	4.6
SUD	6.6–12.7	8.6
Alcohol	6.3	6.4
Any Illicit Drug	8.4	10.5
Marijuana	6.3	7.8
Pain Relievers/Opioids	2.4	3

	<b>Veteran Population (%)</b>	<b>Non-Veteran Population (%)</b>
Suicide Rate	35.3/100,000	15.2/100,000

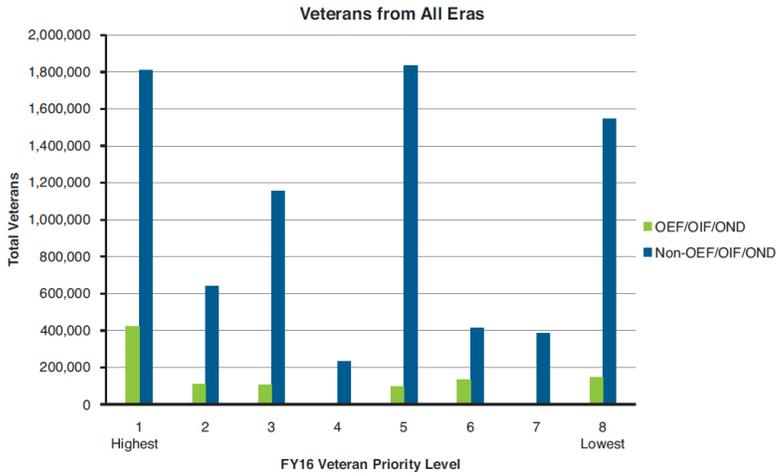
**Table 4-4 Example of the Scope of Mental Health Practice for Five Main Types of Health Care Providers**

<b>Type of Provider</b>	<b>Diagnoses Mental Health Disorders</b>	<b>Provides Psychosocial Treatment</b>	<b>Does Psychological Testing</b>	<b>Prescribes Medicines</b>
Licensed clinical social worker (LCSW)	X	X		
Clinical psychologist	X	X	X	<sup>a</sup>
Marriage and family therapist (MFT)/ licensed professional counselor (LPC)	X	X		
Psychiatrist	X	X		X
Advanced practice psychiatric nurse (APPN)	X	X		X
Primary care provider (PCP) (physicians, advanced practice registered nurses, and physician assistants)	X	X		X

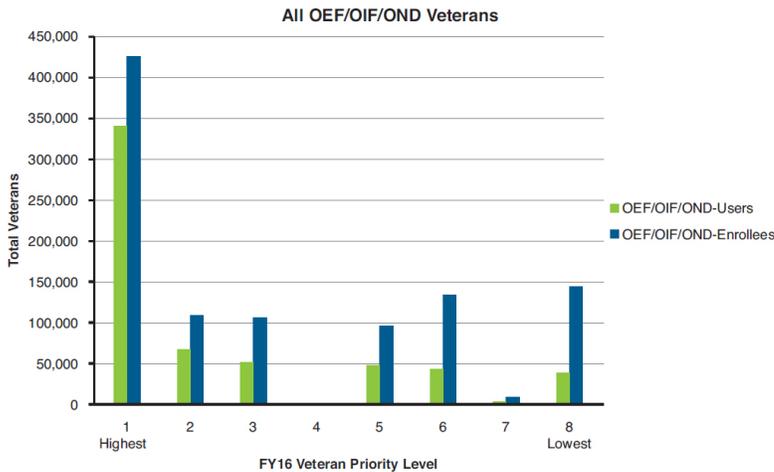
**Table 4-5 Mental Health Screening in the VA**

<b>PTSD</b>	<b>MDD</b>	<b>Alcohol Misuse</b>	<b>Suicide Risk</b>	
Frequency	All new patients seen at a VA medical facility.	All new patients seen at a VA medical facility.	All new patients seen at a VA medical facility.	Mandatory screening for suicide risk if a patient screens positive for PTSD or MDD. <sup>a</sup>
	Annual rescreen for the first 5 years and every 5 years after that.	Annual rescreen for patients seen in a primary care setting.	Annual rescreen for patients seen in primary care, medical specialty, and mental health care settings.	
Instrument	The Primary Care PTSD Screen (PC-PTSD) (Prins et al., 2004) is incorporated into the VHA clinical reminder system.	Patient Health Questionnaire-2 (PHQ-2) (Kroenke et al., 2003) is incorporated into the VHA clinical reminder system.	Alcohol Use Disorders Identification Test Consumption (AUDIT-C) <sup>b</sup> (Bush et al., 1998) is incorporated into the VHA clinical reminder system.	Instruments used can vary widely across the VA system (Doran et al., 2016).

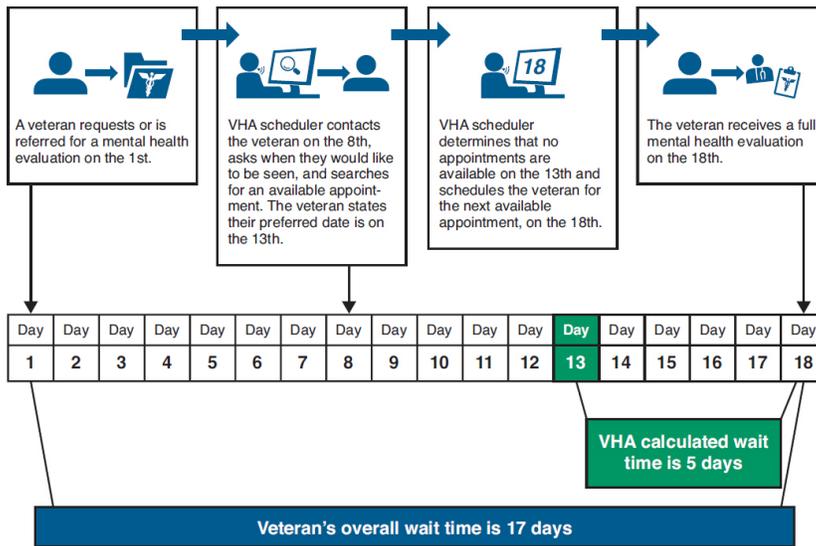
**Figure 6-1: Number of Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), and Operation New Dawn (OND) veterans versus number of non-OEF/OIF/OND veterans enrolled in each Department of Veterans Affairs (VA) priority group in FY 2016**



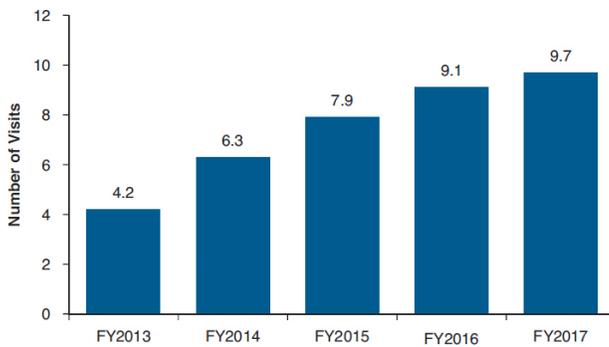
**Figure 6-2: Number of OEF/OIF/OND veterans enrolled in each VA priority group versus number of OEF/OIF/OND veterans enrolled and using VA health care services in FY 2016**



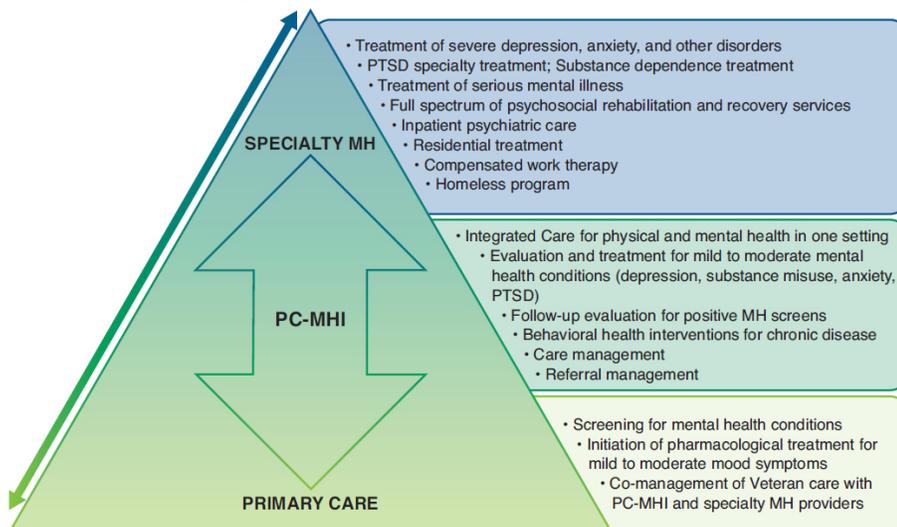
**Figure 9-1 Actual versus VA calculated wait time for mental health appointments**



**Figure 11-1 Average number of veteran mental health visits for fiscal years 2013–2017**



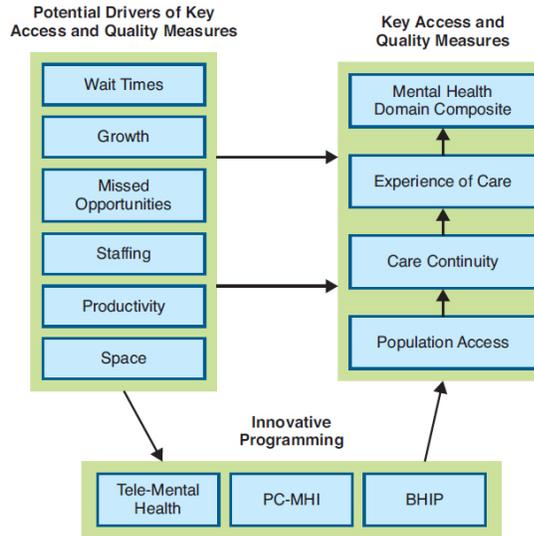
**Figure 12-1 Continuum of VA mental health services**



**Box 12-2: Stepped-Care Model for Mental Health at the VHA**

*Primary care–mental health integration (PC-MHI) → Behavioral Health Interdisciplinary Program (BHIP) → specialty care (PTSD, SUD, MHICM) → tertiary and residential care (residential rehabilitative treatment program)*

**Figure 15-1 VHA Mental Health Management System framework**



**Links**

- Report Overview: <http://nationalacademies.org/hmd/reports/2018/evaluation-of-the-va-mental-health-services.aspx>
- Key Findings & Recommendations: <https://www.nap.edu/resource/24915/01312018VAmentalHealth.pdf>
- Press Release: <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=24915>
- Full Report: <https://www.nap.edu/read/24915/chapter/1>

## NASEM OPIOID REDUCTION REPORT (2017)

### Type

Committee Report

### Summary

Drug overdose is now the leading cause of death from unintentional injury in the United States, and most of these deaths involve an opioid. The ongoing opioid crisis lies at the intersection of two public health challenges: reducing the burden of suffering from pain and containing the increasing toll of the harms that can arise from use of opioid medications.

On one hand, meeting the needs of tens of millions of U.S. residents suffering from pain (including acute pain, chronic pain, or pain at the end of life) requires access to a broad array of therapies for pain management. On the other hand, harms associated with use of prescription opioids, including misuse, opioid use disorder (OUD, a substance use disorder involving opioids), and overdose, affect not only patients with pain themselves but also their families, their communities, and society at large. Chronic pain and OUD both represent complex human conditions affecting millions of Americans and causing untold disability and loss of function.

Against this backdrop, the U.S. Food and Drug Administration (FDA) asked the National Academies of Sciences, Engineering, and Medicine to convene a committee to update the state of the science on pain research, care, and education and to identify actions the FDA and others can take to respond to the opioid epidemic.

The resulting report, *Pain Management and the Opioid Epidemic: Balancing Societal and Individual Benefits and Risks of Prescription Opioid Use*, states that a sustained, coordinated effort is necessary to stem the still-escalating prevalence of opioid-related harms, including a culture change in prescribing for chronic noncancer pain, aggressive regulation of opioids by the FDA, and multi-pronged policies by state and local governments. However, the committee also counsels against arbitrary restrictions on access to opioids by suffering patients whose health care providers have prescribed these drugs responsibly.

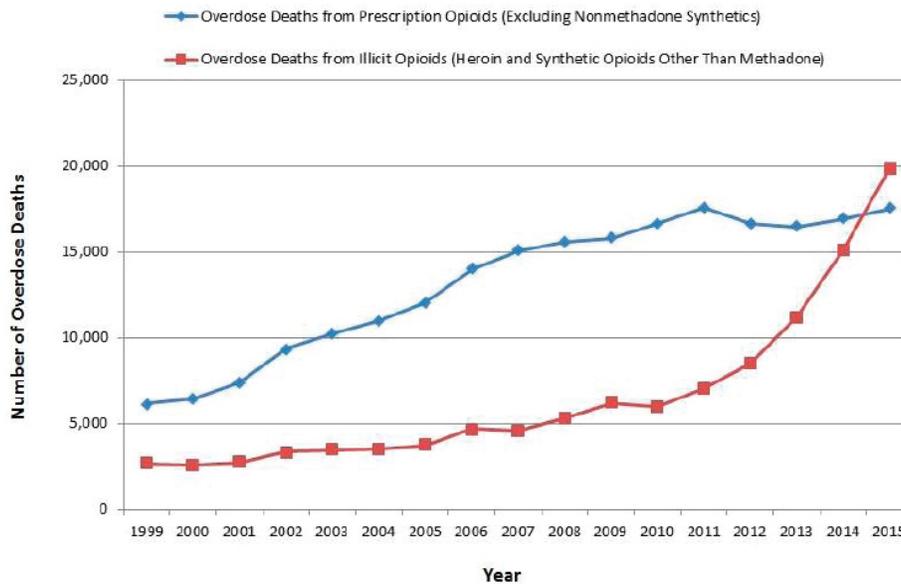
### Recommendations

- Invest in research to better understand pain and Opioid use disorder
- Consider potential effects on illicit markets of policies and programs for prescription Opioids
- Improve reporting of data on pain and opioid use disorder
- Invest in data and research to better characterize the opioid epidemic
- Improve access to drug take-back programs
- Establish comprehensive pain education materials and curricula for health care providers
- Facilitate reimbursement for comprehensive pain management
- Improve the use of prescription drug monitoring program data for surveillance and intervention

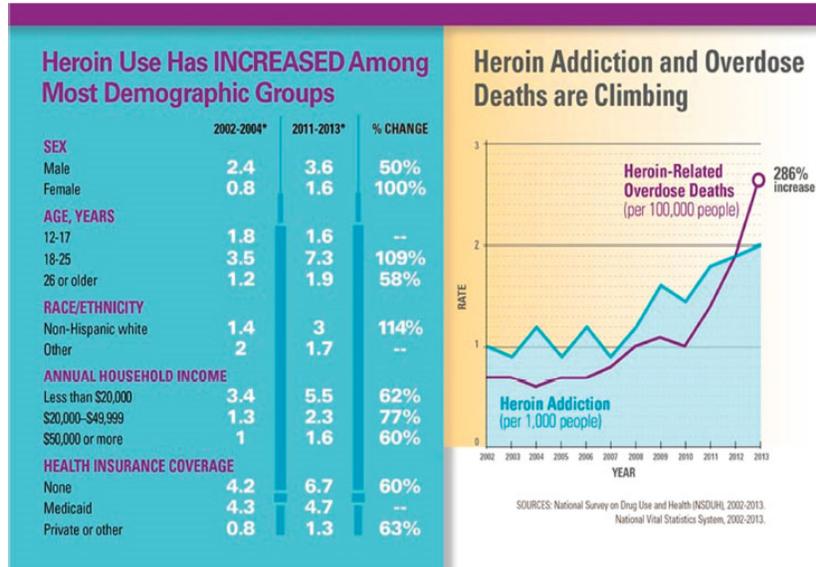
- Evaluate the impact of patient and public education about opioids on promoting safe and effective pain management
- Expand treatment for opioid use disorder
- Improve education in treatment of opioid use disorder for health care providers
- Remove barriers to coverage of approved medications for treatment of opioid use disorder
- Improve access to Naloxone and safe injection equipment
- Incorporate public health considerations into opioid-related regulatory decisions
- Require additional studies and the collection and analysis of data needed for a thorough assessment of board public health considerations
- Ensure that public health considerations are adequately incorporated into clinical development
- Increase the transparency of regulatory decisions for opioid in light of the Committee's proposed system approach
- Strengthen the post-approval oversight of opioids
- Conduct a full review of currently marketed/approved opioids
- Apply public health considerations to opioid scheduling decisions

## Graphics

**Figure 1: Number of overdose deaths from prescription and illicit opioids, United States, 1999–2015**



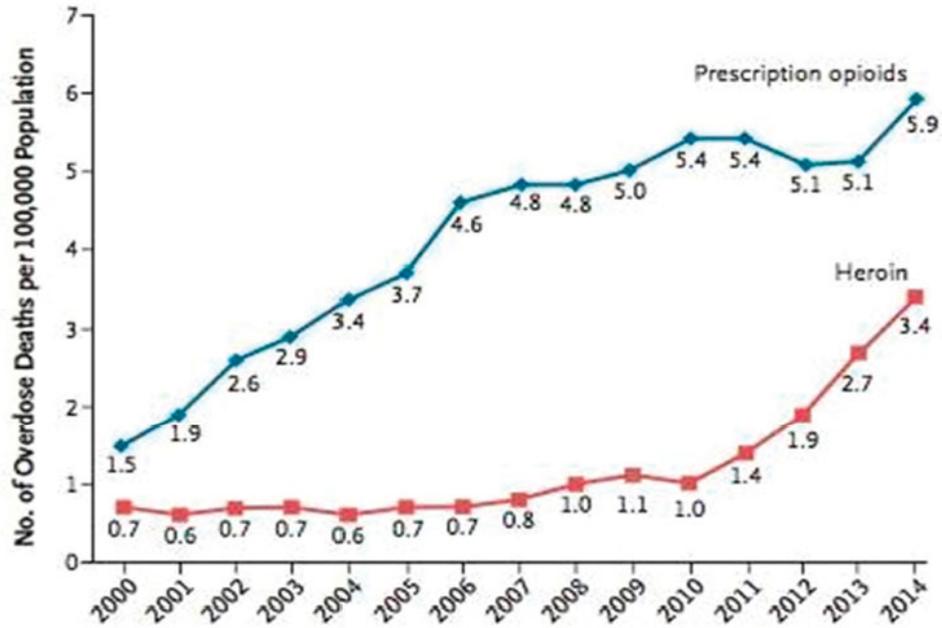
**Figure 2: Public health impact of heroin use**



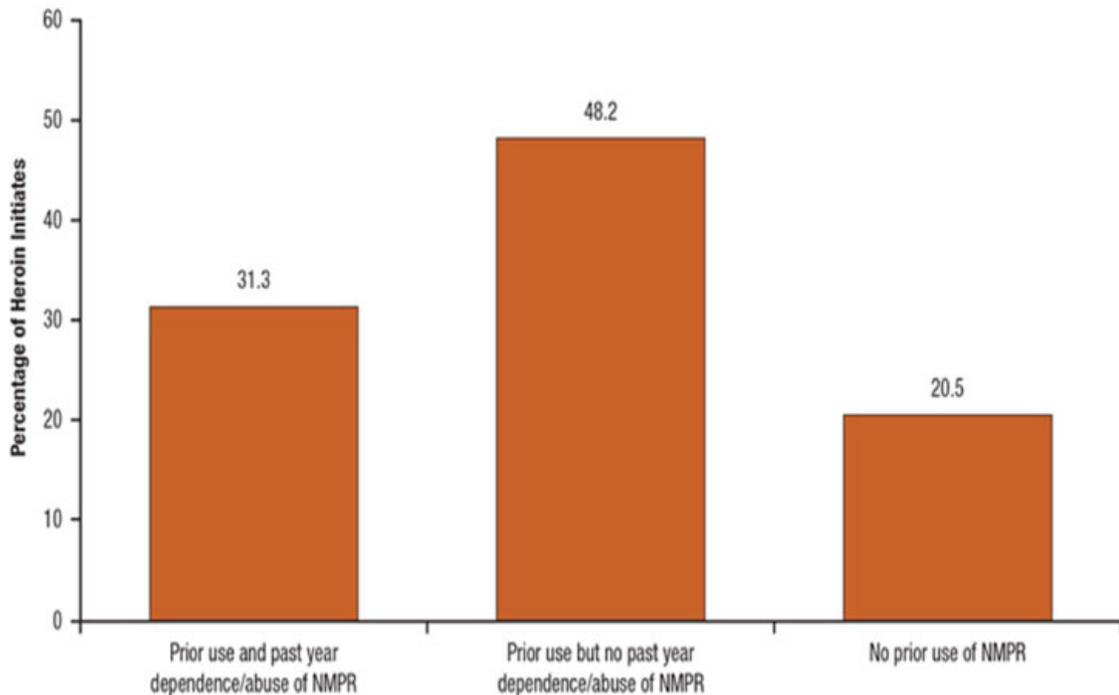
**Figure 3: Age-adjusted heroin overdose death rates per 100,000 population from 2014 (light blue) to 2015 (dark blue), by census region of residence**



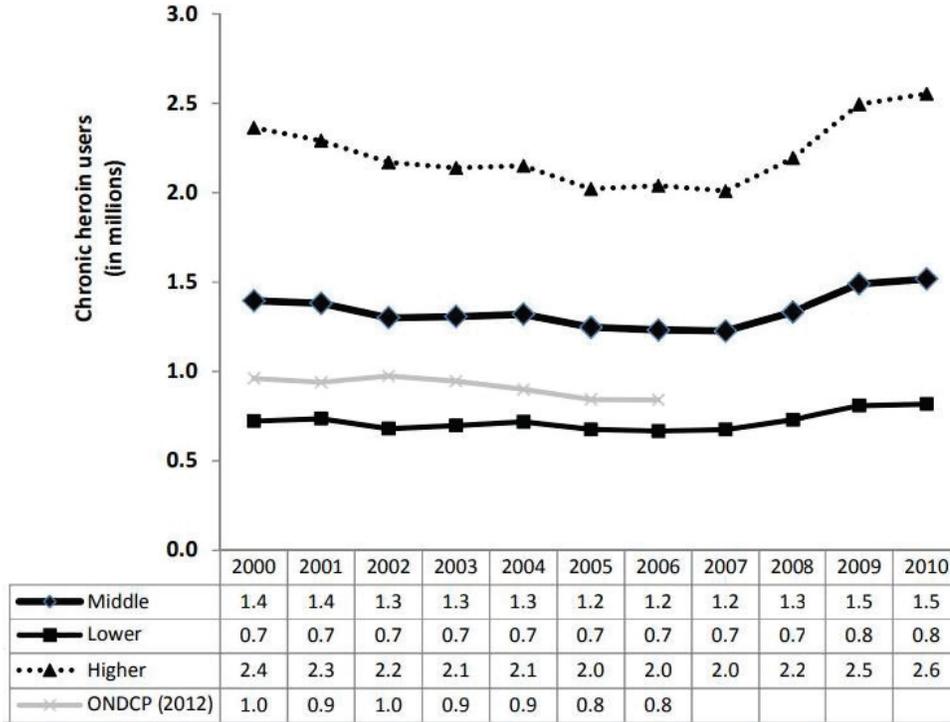
**Figure 4: Age-adjusted rates of death related to prescription opioids and heroin drug poisoning in the United States, 2000–2014**



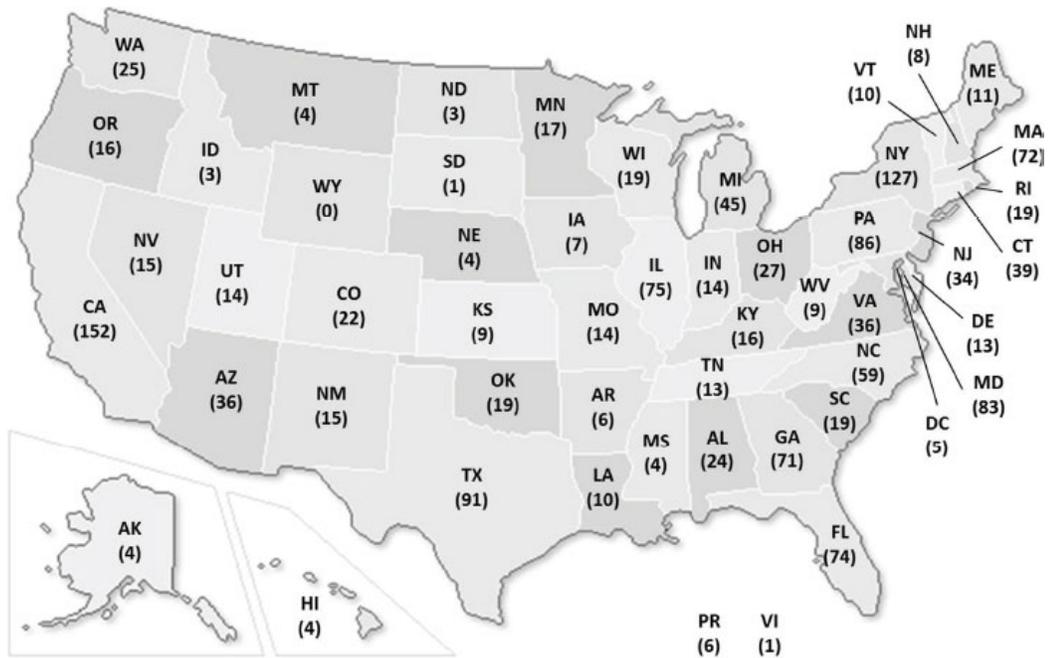
**Figure 5: Percentage of heroin initiates among persons aged 12–49, by prior and past-year dependence on/abuse of nonmedical pain relievers (NMPRs), 2002–2011**



**Figure 6: Estimated number of chronic heroin users, 2000–2010 (in millions)**



**Figure 7: Number of opioid treatment programs certified by the Substance Abuse and Mental Health Services Administration (SAMHSA) by state, 2016**





## Links

- Study Report Highlights: [https://www.nap.edu/resource/24781/Highlights\\_071317\\_Opioids.pdf](https://www.nap.edu/resource/24781/Highlights_071317_Opioids.pdf);
- Study Report Recommendations: [https://www.nap.edu/resource/24781/Recs\\_071317\\_Opioids.pdf](https://www.nap.edu/resource/24781/Recs_071317_Opioids.pdf);
- Study Report – Full: <https://www.nap.edu/read/24781/chapter/1>

## VOI BEHAVIORAL HEALTH

### Type

Resource – Technology

### Summary

Voi is a behavioral healthcare technology company delivering empirically-validated solutions that address the needs of those at risk for suicide and other behavioral health issues, as well as those who care for them. The Voi platform offers a suite of tools that combine science, technology, collaboration, and compassion to identify and aid at-risk individuals. Voi can help hospitals and health systems; public agencies; and education institutions, solve many of their complex challenges: keeping people alive and well, managing risks, creating standards, documenting and implementing best practices, lowering costs, and generating revenue.

### *Voi Detect*

Voi Detect is the new standard of care for imminent suicide risk screening and behavioral health assessment. It is a HIPAA-compliant product that delivers digitized risk assessments and detailed analytics on patients and populations. Voi Detect can pull from an extensive catalog of standardized assessments, including public-domain instruments, detailed surveys, self-evaluations, questionnaires, and even proprietary instruments to assess for behavioral health conditions. After delivering the selected assessment, Voi Detect generates real-time risk scores and monitors and tracks operational and compliance metrics. Clinics, hospitals, and healthcare systems can also manage assessment deployment and track patients' progress through their electronic health record (EHR) – or the Voi team can provide that service. Assessments on Voi Detect can be completed without internet connectivity. Once connectivity is reestablished, the stored results can be automatically posted back to the EHR and uploaded to the dashboard. Voi Detect enables healthcare systems to lower costs and improve time-and resource-efficiency, patient satisfaction, and the quality of care.

Voi Detect is the new standard of care for imminent suicide risk screening. Its library of behavioral risk assessments includes standardized and validated assessments known to predict both long- and near-term suicide risk, such as the Columbia Severity Rating Scale (C-SSRS) and the Systematic Expert Risk Assessment for Suicide (SERAS™). Voi Detect can also digitize any proprietary suicide risk assessments with copyright permission.

### *Voi Reach*

Voi Reach leverages the power of social connections in a single mobile application to provide unparalleled support for individuals struggling with behavioral health issues. By engaging their natural support network, individuals can build and reach out to their care team, which can include friends, family, community members, behavioral health coaches, therapists, clinicians, and other professionals who can provide readily accessible support and encouragement.

Voi Reach is a revolutionary, technology enhanced by predictive data analytics developed to provide remote care for individuals living with behavioral health issues. If Voi Reach is

deployed with Voi Detect, healthcare professionals have the capability to send Voi Detect assessments to individuals for remote continuous monitoring of their wellbeing.

Voi Reach is a technology designed to provide continuous support for individuals in need. Voi Reach can deliver 24/7 feedback, guidance, and interventions when needed, such as assessments, educational materials, and insights, guided by predictive data analytics. Voi Reach also fulfills the Quadruple Aim for healthcare by enhancing the patient experience, improving outcomes, reducing costs, and improving the job satisfaction of healthcare providers and staff.

## Graphics

### Voi Detect Benefits



#### Voi Detect features benefits beyond all other screeners

- ✓ Features only validated imminent suicide risk screener (72 hrs)
- ✓ Replicates gold standard of psychiatric judgment
- ✓ Self-assessment on tablet, smartphone, or workstation
- ✓ Assessment can be completed in under two minutes
- ✓ Scoring based on logic node
- ✓ Capable of learning and improving risk detection over time

Defining a New Industry Standard

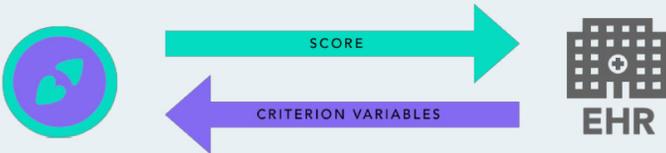


### Voi Detect Model

#### Benefit of Neural Network Model

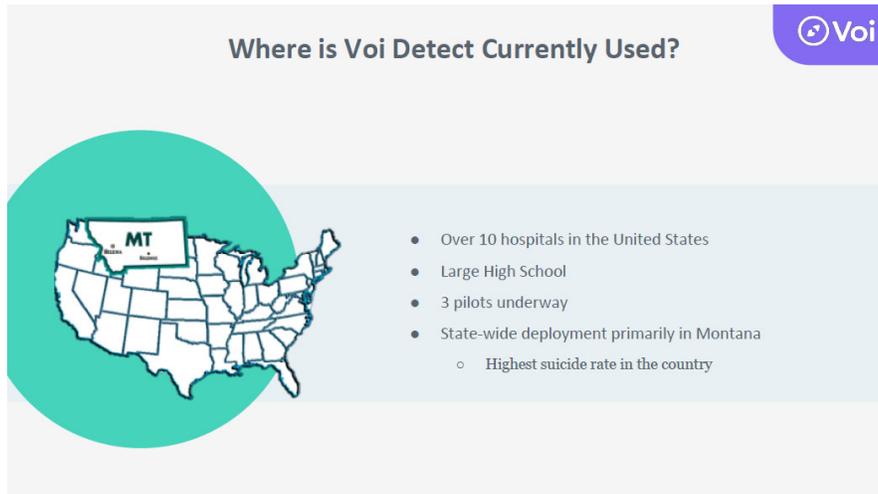
With a connection to the electronic health record,\* Voi Detect can use criterion variables in the medical record (such as suicide attempts or suicidal ideation) to continuously improve the scoring algorithm.





\*Voi Detect can also be used as a stand-alone product

## Voi Detect Usage



### Links

- Voi: <https://www.voi.com/>
- Voi for Service Members: <https://www.voi.com/for-service-members>
- Voi for Veterans: <https://www.voi.com/for-veterans>
- Applicable PDF presentations/materials:



Reach Print FAQs  
generic 8.31-2.pdf



Detect Print FAQs  
Suicide Risk 8.31-12.



SBIR Deck.pdf